

rated from those that include the herbivorous forms. The two suborders defined include very aberrant forms, which show many points of resemblance to Mesozoic birds. Among the more fragmentary remains belonging to this order, but not included in the present classification, this resemblance appears to be carried much further.

The order Hallopoda, which I have here referred to the Dinosauria, with doubt, differs from all the known members of that group in having the hind feet especially adapted for leaping, the metatarsals being half as long as the tibia, and the calcaneum produced far backward. This difference in the tarsus, however, is not greater than may be found in a single order of Mammals, and is no more than might be expected in a subclass of Reptiles.

Among the families included in the present classification, I have retained three named by Huxley (*Scelidosauridæ*, *Iguanodontidæ*, and *Megalosauridæ**), although their limits as here defined are somewhat different from those first given. The suborder Compsognatha also was established by that author in the same memoir, which contains all the more important facts then known in regard to the Dinosauria. With the exception of the *Hadrosauridæ*, named by Cope, the other families above described were established by the writer.

The *Amphisauridæ* and the *Zanclodontidæ*, the most generalized families of the Dinosauria, are only known from the Trias. The genus *Dystrophæus*, referred provisionally to the Sauropoda, is likewise from deposits of that age. The typical genera, however, of all the orders and suborders are Jurassic forms; and on these especially the present classification is based. The *Hadrosauridæ* are the only family confined to the Cretaceous. Above this formation there appears to be at present no satisfactory evidence of the existence of any Dinosauria.

XII.—*On a small Collection of Lepidoptera from Melbourne.*
By ARTHUR G. BUTLER, F.L.S., F.Z.S., &c.

THE present series consists of ninety-one examples, some of them unfortunately in very poor condition, forwarded to us from Australia by Dr. T. P. Lucas. Notwithstanding that not a few of the specimens are more or less worn or broken,

* 'Quarterly Journal Geological Society of London,' vol. xxvi. p. 34, 1870.

there are many species among them which are new to the national Collection, and some hitherto unknown to science. The following is a list of the species.

RHOPALOCERA.

Nymphalidæ.

SATYRINÆ.

1. *Geitoneura Klugii*, Guérin (386).

A male specimen.

Lycænidæ.

2. *Polyommatus bæticus*, Linn. (72).

A male.

3. *Lampides? palemon*, Cram. (73).

A male.

4. *Lycæna phæbe*, Murray (75).

A female.

5. *Lucia limbaria*, Swains. (391 and 400).

A pair.

6. *Ialmenus icilius*, Hewits. (68).

A male.

Hesperiidæ.

7. *Telesto flammeata*, sp. n. (383).

Near to *T. donnysa*, but smaller, the costal margin of primaries shorter; spots of primaries as in *Plesioneura dan*, the two spots on the median interspaces being placed at the base of these areoles, and therefore only separated from the quadrate subcostal spot by the median vein and second median branch, which are dark brown; the interno-median spot also being obsolete; the three subapical spots are smaller, the two upper ones being reduced to mere points; the ground-colour is chocolate-brown, the basal two fifths clothed with olivaceous hair-scales; spots hyaline stramineous; fringe tipped with ochreous, excepting at external angle, where it is white: secondaries as in *T. donnysa*, excepting

that they are shorter and that the fringe is tipped with ochreous instead of white: body clothed with paler and greener hairs. Wings below more clay-coloured, and with a pink gloss; the primaries with spots as above, the dark discoidal area more restricted and not so black: secondaries with the spots dark brown, the discal series interrupted, owing to the absence of any spot on the lower radial interspace: body below yellowish white; legs pale reddish-clay-coloured. Expanse of wings 35 millim.

One example.

Hewitson's figure of *T. donnyisa* is not characteristic, the spots on the primaries being smaller and less quadrate than usual, and the patch on the secondaries larger; this patch is usually confined to the radial interspaces, the median spots being small and concealed by the olivaceous hairs which clothe the basi-abdominal third of the wing.

8. *Telesto eclipsis*, sp. n. (387).

Wings above chocolate-brown, shot with bronzy green: primaries with the basal half densely clothed with ochreous hair-scales; basal half of third median branch velvet-black; a large circular velvet-black spot, bounded internally by a lunate hyaline whitish spot at the base of the first median and the middle of the interno-median interspaces; an oval hyaline whitish spot at the end of the cell, a second at the base of the second median interspace, and three dots on the subcostal interspaces (as in the preceding species): secondaries with the discoidal area almost to outer margin densely clothed with ochreous hair-scales, and the median and interno-median areas almost to outer margin with olivaceous hair-scales; a slender greyish marginal line: fringe of primaries tipped with whitish brown, that of secondaries with ochreous: body clothed with greenish hairs, anal tuft ochreous at tip. Under surface of wings yellowish-clay-coloured: primaries with the internal half grey, becoming blackish close to the median vein; a hyaline oval spot at the end of the cell, a second near the base of the second median interspace, and a small dot on the last subcostal interspace; a slender brown marginal line; fringe brown, with a pale basal line: secondaries with a small dark-brown spot at the end of the cell, and a slightly irregular arched series of six spots on the disk: body below greenish white; legs brown above, the femora and tibiae with a greenish-white line below the tarsi, below pale brown. Expanse of wings 35 millim.

A male.

9. *Telesto compacta*, sp. n. (95).

Allied to *T. Doubledayi* (*T. dirphia*, Hew.). Primaries above darker, but with the same pattern, excepting that the fringe is clay-coloured spotted with black: secondaries dark purplish brown, clothed towards the base with greenish hairs, and crossed in the middle by an abbreviated series of four yellowish-white hyaline spots; four smaller spots are placed nearer the base, two in the cell, and two on the first subcostal interspace; fringe clay-coloured: body densely clothed with green hairs. Wings below reddish clay-coloured; hyaline spots nearly as above, but rather more numerous in appearance, some sericeous white spots being added: primaries with the margins of the \hookleftarrow -shaped discoidal marking and a broad patch crossing the median interspaces black; internal area grey; fringes as above: body below greenish white; tarsi gray-coloured. Expanse of wings 27 millim.

A male.

10. *Taractrocera papyria*, Boisdl. (4).

A male.

HETEROCERA.

Zygænidæ.

11. *Procris dolens*, Walk. (314).

A worn male.

Lithosiidæ.

12. *Deiopeia pulchella*, Linn., var. *lotrix*, Cramer.

One poor specimen of this variety.

13. *Termessa læta*, Walk.

A broken example.

Liparidæ.

14. *Porthesia melanosoma*, sp. n. (357).

Snow-white; antennæ with greyish-brown pectinations; abdomen black, with snow-white anal tuft; anterior femora blackish above; anterior tibiæ above ochreous: primaries below with the base of costal border blackish. Expanse of wings 32 millim.

A male.

We have two female examples in the Museum of an allied species from Tasmania. They are snow-white, with black abdomen as in *P. melanosoma*; but the anal tuft is bright orange, and there is no blackish colouring at the base of the primaries on the under surface. One of these specimens is labelled "*mixta*" by Walker; and therefore the species may take that name.

15. *Teia pusilla*, sp. n. (287).

Teia anartoides, var. β , Walker, Cat. Lep. Het. iv. p. 804 (1855).

Smaller than *T. anartoides*; primaries redder, with fewer greyish-white scales; secondaries with slightly narrower black border. Expanse of wings 21–30 millim.

A male without abdomen.

T. anartoides, which is confined to Tasmania, expands 33–34 millim., and seems constant to that size. There are five examples in the Museum; of *T. pusilla* we have seven specimens.

16. *Darala stygiانا*, sp. n. (316).

Primaries above grey, or (when seen through a lens) black densely irrorated with white scales; a small black-edged white spot in the cell, connected by a longitudinal black line to a larger similar spot at the end of the cell; wing crossed by five zigzag black stripes, the first three near together before the middle, the last, acutely zigzag, submarginal: secondaries cream-coloured, changing at external third to ashen grey; base washed with testaceous; a straight blackish stripe across the basal third; an undulated blackish arched line at external third; a submarginal series of white dots; fringe of all the wings black, spotted with white: body black, with scattered white hairs; antennæ white, with grey pectinations; abdomen sericeous white, mixed with carmine hairs at the sides. Wings below white, sericeous; external third greyish; a slightly irregular black stripe just before the middle; a slender and slightly undulated discal blackish line, followed by a broad diffused grey belt with zigzag outer edge; fringe blackish, spotted with white: primaries with the discoidal area testaceous; a black-bordered white spot in the cell, and a second at the end of the cell; costal margin dusky: secondaries with a small blackish spot in the cell: thorax below brown in the middle and black at the sides, very hairy, and with scarlet and carmine hairs mixed in with the black and brown ones; legs above greyish brown, knees and end of tibiæ sulphur-yellow; anterior tibiæ clothed with pale yellow

hair above and with white hair below, amongst which is a long flattened digitate whitish process, with a black central bar; venter white. Expanse of wings 73 millim.

A male.

This insect came in such a greasy condition that the coloration was entirely altered; after soaking for five minutes in benzole the sides and under surface of the body changed from stramineous to white.

Apamiidæ.

17. *Mamestra confundens*, Walk. (363).

One example.

This species was described by Walker in one of his supplementary papers under the title of "Characters of undescribed Lepidoptera Heterocera."

18. *Miana Lucasii*, sp. n. (330).

Whity brown, sericeous: wings with a slender black marginal line, interrupted at the extremities of the veins: primaries clouded with greyish brown; costal border whitish to apical fifth, but crossed by black lines; submedian vein, median, and its first two branches white; a rust-red stripe running longitudinally through the interno-median area; external border snow-white, with deeply dentate-sinuate internal edge; fringe pale red-brown; orbicular spot small, rust-red, with black margin; reniform spot with its lower half prolonged, dark brown, with blackish-edged orange inner border and snow-white >-shaped outer border, below the inferior extremity of which is a small white dot; a slightly irregular denticulated externally buff-bordered black line across the disk, and three equidistant zigzag black lines between the end of the cell and the base: secondaries sordid white, with snow-white fringe; an oblique dusky disco-cellular dash, beyond which the wing is crossed by an indistinct denticulated brownish line, followed almost immediately by a similarly-coloured stripe: body whity brown, the thorax white, with pale-brown margins to the tegulæ and collar, a blackish spot on the middle of the frons. Wings below shining white, with a slight brassy tint; the surface, particularly of the secondaries, irrorated with brown; blackish disco-cellular spots; a slender interrupted marginal brown line: primaries with brown-tipped fringe: secondaries with a transverse series of little black dashes on the veins, followed by a brownish undulated submarginal stripe: body below white. Expanse of wings 33 millim.

One example.

This is a strikingly distinct and rather large species.

Noctuidæ.

19. *Agrotis Baueri*, Felder (347).

One perfect specimen.

An insect labelled No. 335 is too much broken and rubbed for identification; the abdomen is wanting, and the wings are worn and split.

Poaphilidæ.

20. *Phytometra tristis*, sp. n. (70).

Brownish grey; fringe of wings a little paler: primaries with four nearly equidistant white costal spots, the first at the outer edge of a broad dark-brown angular basal band, the second and third at inner and outer edges of a broad central band of the same character; a black spot at the end of the cell; margins of tegulæ and posterior margins of abdominal segments indistinctly whitish. Primaries below grey, sericeous; costal border creamy whitish at base; four dusky costal spots, the third and fourth of which are the commencement of two internally diffused, externally undulated, and whitish-bordered subparallel discal bands; fringe with a pale basal line; discocellulars black: secondaries greyish brown, with a slight pink tint, the basal three fourths almost entirely occupied by three internally diffused and externally white-bordered undulated oblique bronze-brown bands; fringe with a white basal line: body below white, irrorated with brown; legs brown above, white below. Expanse of wings 25 millim.

One male.

Urapteridæ.

21. *Idiodes mitigata*, Guénée (124).

One example.

This species is figured by Felder as *I. inspirata* of Guénée.

22. *Idiodes siculoides*, Walker.

A fragment.

Walker unnecessarily made a new genus (*Choara*) for this species; it does not differ in a single structural character from *Idiodes*.

Ennomidæ.

23. *Gynopteryx ada*, sp. n. (37).

Pale pinky brown, sericeous; wings mottled all over with slaty-grey striolations; fringe tipped with white: primaries with a nearly straight line, formed by the congregation of some of the grey mottlings, at basal third; an oblique grey line, with whitish external edge, from the inner margin to the costa near apex; this line is scarcely perceptibly angulated at the third median branch; a small blackish discocellular spot; a blackish stripe through the centre of the fringe: secondaries crossed by a slightly tapering discal grey stripe; basal area pale; abdomen paler than the thorax. Under surface pinky brown or pale copper-colour, speckled with black; black discocellular spots and a black discal line running to costa near apex on all the wings: primaries with some ash-grey mottlings on external area between the veins; pectus silvery whitish behind the legs. Expanse of wings 34 millim.

One example.

Boarmiidæ.

24. *Tephrosia exportaria*, Guénéé.

One example.

25. *Tephrosia fractaria*, Guénéé.

One broken example.

Geometridæ.

26. *Chlorochroma vulnerata*, sp. n. (128).

Bright emerald-green: primaries crossed in the middle by two whitish reversed zigzag lines, most nearly approximated on the interno-median interspace; secondaries with only one (the outer) line; fringe of all the wings carmine, tipped with pinky white; costal border of primaries carmine internally and white externally; a carmine spot at end of cell on secondaries: antennæ white, with carmine pectinations; head carmine, with a transverse white band on the vertex. Wings below paler than above, and without zigzag whitish lines: body below creamy yellow; the legs above and the terminal joint of the palpi carmine. Expanse of wings 26 millim.

A male.

This beautiful little species comes nearest to *C. externa*; but the fringe of the latter insect is pale sulphur-yellow at the base, and plum-coloured with black spots externally.

The *C. decisissima* of Walker is his *Geometra semicrocea*, the "*semicroceus*" coloration of which is due to fading.

27. *Chlorochroma carenaria*, Guénée (146).

A male.

Walker's *Geometra submissaria* consists of faded specimens of this species.

Acidaliidæ.

28. *Asthenia ondinata*, Guénée (96).

One example.

29. *Asthenia risata*, Guénée (116).

A broken specimen.

30. *Acidalia repletaria*, Walk. (67).

A broken example.

31. *Acidalia optivata*, Walk. (122).

One example.

Macariidæ.

32. *Macaria remotaria*, Walk., var. *frontaria*, Walk. (111).

One of the typical form, and one of the variety.

The *M. infixaria* and *M. porrectaria* of Walker are identical with *M. remotaria*.

33. *Macaria inconcisata*.

Panagra inconcisata, Walker (270).

One example.

I refer this species to *Macaria* in its unrestricted sense; it is possible, however, that when the whole of the species placed under this generic name are examined it may not be found to fall into the typical group.

Fidoniidæ.

34. *Panagra tryxaria*, Guénée (100).

One example.

35. *Panagra hypenaria*, Guénée (136).

One broken specimen.

36. *Panagra curtaria*, Guénée (86).

One specimen.

37. *Gorytodes? confluaria*, Guénée (19).

One example.

This species is a little aberrant for *Gorytodes*, the palpi being longer; Guénée's assignment of the species to *Panagra* is absurd.

38. *Gorytodes? graphicata*, Walker (520).

One example.

Certainly congeneric with the preceding species, but with shorter palpi; it was referred by Walker to *Tephrina*.

39. *Dasyuris metaxanthata*, Walk.

A male (no number given).

This species was referred by Walker to *Cidaria*.

Ligiidæ.

40. *Chlenias arietaria*, Guénée (275).

A male without abdomen.

Larentiidæ.

41. *Larentia clandestinata*, Walk. (14).

One injured specimen.

42. *Chrysolarentia confasciata*, sp. n. (130).

Allied to *C. vicissata*. Primaries with the basal fourth dark brown, limited externally by a whitish line elbowed within the cell; next to this is a red-brown band; central area whitish, pyramidal, the widest part being at costa, its inner border traversed by two black lines, its outer, which is wider, by three golden-brown lines, and its centre, from costa to middle of interno-median interspace, by a broad dark-brown belt, wide on the costa, but tapering behind to an obtuse point; three externally acute blackish subapical spots in a transverse series; costal area at apex greyish brown; external area black internally, testaceous, clouded with grey externally, the two parts being divided by a central dentate-sinuate

whitish line, the apical portion obliquely rounded off internally, and limited by a white dash; a marginal black line, interrupted at the extremity of the nervures; fringe dark brown, with a pale basal line: secondaries bright ochreous, with black marginal line as on the primaries; fringe greyish brown, traversed by two pale lines; two brown streaks at anal angle, and a few small spots along the abdominal margin: body pale pinky brown; palpi and a double dorsal series of spots on the abdomen black. Under surface of wings testaceous, speckled with brown; a disco-submarginal squamose brownish band; a brown postmedian line, and a small black spot at the end of each discoidal cell; a very slender black marginal line; fringe grey, with a pale-yellow basal line: body below whitish, irrorated with brown. Expanse of wings 34 millim.

A female example.

The allies of this species have been referred to various genera: Guénée placed some of them (as *C. vicissata*) in *Coremia* and others in *Campyogramma*; Walker placed them under *Coremia* and *Cidaria*; and Felder referred them to *Cidaria* only. They seem to me to have greater affinity to *Larentia* than to any of these three genera; but the primaries are, as a rule, more acute, and the character of coloration, which may be roughly described as consisting of dark-brown primaries and ochraceous secondaries, is very different; the palpi, as in many genera of Geometrites, form a conical point in front of the head, the antennæ are pectinated in the males, but simple in the females. I would propose for this group the generic name of *Chrysolarentia*.

PHRISSOGONUS, gen. nov.

Allied to *Microdes*. Male with the costal margin of the primaries angulated at basal third and bearing a projecting tuft of short hairs, the whole central area of these wings very coarsely scaled on the under surface; antennæ of male thick and pubescent; venation quite simple; pattern like that of *Eupithecia*, which the female perfectly resembles.

43. *Phrissogonus canatus* (92).

♀. *Scotosia canata*, Walker.

A pair.

44. *Coremia? solutata*, Walk. (27).

One specimen.

In my opinion this species should be referred to *Larentia*.

45. *Coremia relictata*, Walk. (15).

One specimen without abdomen.

46. *Coremia cymaria*, Guénée (15).

One example without abdomen.

47. *Coremia? plusiata* (24).

Panagra plusiata, Walker.

One example.

48. *Coremia plurilineata* (299).

Panagra plurilineata, Walker.

One example.

49. *Coremia revulsaria* (305 & 307).

Panagra revulsaria, Walker.

Two examples.

50. *Camptogramma mecynata*, Guénée (526).

One worn female.

This species was subsequently described (twice in the same page) by Mr. Walker under the names of *C. extraneata* and *C. annuliferata*.

51. *Phibalapteryx scitiferata* (150).

Scotosia scitiferata, Walk.

One damaged example.

52. *Phibalapteryx glandulata*, Guénée (79).

One fairly good specimen.

This species should by right be generically separated from *Phibalapteryx*, on account of the glandular patch on the upper surface of the secondaries in the male.

Euboliidæ.

53. *Eubolia capitata* (89).

Tephрина capitata, Walk. (? = *flavicapitata*, var., Guén.).

One example.

54. *Eubolia? obtusata* (5).

Panagra obtusata, Walk.

One example.

This and the following do not quite agree in character with *Eubolia*, the style of pattern being more nearly that of *Camp-togramma*, to which genus it may be necessary, after more minute structural examination, to refer them; the type of coloration approaches more nearly to that of *Anaitis* in some respects.

55. *Eubolia?* sp. n. (284).

The single example of this species, which seems to be a new form allied to *E. obtusata*, is broken and so much rubbed that it is impossible to describe it with any certainty.

56. *Eubolia linda*, sp. n. (21).

Sericeous ash-grey, the basal four fifths of the primaries washed with brown and crossed by two widely separated white lines, the inner one nearly straight and bordered externally with black, the outer one alternately biangulated, arched towards the costa and bordered internally with black; a black spot at the end of the cell; veins blackish on the disk; a marginal series of small black spots connected by an undulated grey line; fringe whitish at base: secondaries with a marginal series of black dots; two dark grey abbreviated discal lines on the abdominal area; head and thorax blackish. Under surface silvery grey. Expanse of wings 27 millim.

A male example.

Near to "*Punagra*" *atrosignata*.

Ennychiidæ.

57. *Rhodaria robina*, sp. n. (154).

Ochreous; wings above with a rather broad rosy ferruginous external border, more defined in the primaries than the secondaries, its inner edge limited by a line of the ground-colour enclosed by a dull reddish line; the primaries are also crossed by two other similar reddish lines, one crossing the extremity of the cell, and the other halfway between the latter and the base; the costal area reddish, with a continuous series of small, blackish-edged, semicircular, yellow spots along the costal margin; all the wings with a series of minute black dots along the outer margin; fringe rosy, crossed in the middle by an externally white-bordered plum-coloured undulated line. Under surface pale straw-yellow; a ferruginous external border separated by a line of the ground-colour from a red-brown discal line, dotted with blackish on the primaries and abruptly angulated close to costa, oblique and sinuous on the secondaries; a black marginal line; fringe rosy brown,

traversed by a central black line, and on the primaries tipped with white, the same wings with costal margin spotted as above, the discoidal area dark ferruginous, and the internal area dull white; venter with a lateral plum-coloured line. Expanse of wings 27 millim.

A male.

Scopariidæ.

TETRAPROSOPUS, gen. nov.

Aspect and venation of *Scoparia*, but the maxillary palpi large and prominent and the labial palpi having the appearance of three pairs of palpi, the basal joint being ornamented with two compressed and dense pencils of hair, the upper one nearly as long as the body of the palpus and distinctly broader than it, the lower flat and tapering. Legs long and tolerably stout, the middle tibiæ with two unequal terminal spurs, the posterior tibiæ with two similar spurs at distal third.

58. *Tetraprosopus Meyrickii*, sp. n. (90).

Primaries above greyish brown, with longitudinal black streaks between the nervures; basal four fifths speckled with large white scales, which towards the inner margin almost obliterate the black streaks; the discoidal streak, which is broad, obliterated towards the base, and crossed near its outer extremity by a white spot; the edge of the white-speckled area is fairly well defined, oblique and zigzag towards the costa; outer border speckled with white so as to cut off the extremities of the discal streaks, and thereby produce a series of black marginal dots; fringe whitish brown, traversed by two blackish lines: secondaries grey with blackish external area tapering towards the anal angle; costal border white; fringe sordid white, traversed by two lines, the inner one broad and blackish, the outer one grey: thorax blackish, irrorated with white; abdomen wanting in the type. Primaries below shining grey, with bronze reflections; costal border and a line at the base of the fringe cream-coloured: secondaries whiter than above, shining, with brassy reflections, otherwise similar; pectus, under surface of palpi, and the legs pearly white. Expanse of wings 26 millim.

One example.

In appearance and size this interesting species most nearly resembles the *Hypochalcia submarginalis* of Walker's Catalogue, which is a true *Scoparia*. I have named it in honour of E. Meyrick, Esq., a well-known worker at Australian Microlepidoptera.

Phycidæ.

59. *Mella chrysoporella* (35).*Etiella chrysoporella*, Meyrick.

One specimen.

Crambidæ.

60. *Crambus lativittalis*, Walk. (51).

One specimen.

61. *Crambus relatalis*, Walk. (80).

One specimen.

62. *Crambus enneagrammos*, Meyrick (110).

One specimen.

63. *Crambus pleniferellus*, Walk. (157).

One specimen.

This is the *C. impletellus* of Walker, and *C. aurorus* of Felder and Rogenhofer.

Tortricidæ.

64. *Conchylis tasmaniana*, Walk. (114).

One specimen.

65. *Conchylis? subfurcatana*, Walk. (185).

One specimen.

66. *Conchylis thetis*, sp. n. (449a).

Silvery white; primaries above clouded with golden cupreous; markings fuliginous brown with reddish cupreous reflections, as follows—a spot on the interno-median interspace just before the basal third, two very oblique convergent abbreviated bands dividing the costal area into three equal parts, a marginal line and a line on the fringe: secondaries reticulated with greyish brown, a marginal line and a second near the base of the fringe of the same colour: palpi pearl-grey; base of antennæ and shoulders yellow. Primaries and body below pale bronze brown; secondaries silvery white. Expanse of wings 17 millim.

A male.

This species appears to me to belong to the *C. fulvana*

group, though its more acuminate primaries and white secondaries give it a somewhat different aspect.

67. *Penthina?*, sp. (449*b*).

The specimen is too much broken and rubbed for description; it is evidently regarded by the collector as a variety of the preceding: but the wings are not so broad; and the neuration, so far as I can make it out in the rubbed condition of the insect, appears to be that of *Penthina Schulziana*; the style of marking also is that of *Penthina*, the primaries (and not the secondaries) having a reticulated character. It is not unlike *Æcophora retractella* in its general aspect.

Hyponomeutidæ.

68. *Psecadia pretiosella*, Walk. (446).

One example without abdomen.

69. *Psecadia? radiosella*, Walk. (54).

One specimen.

This is the same as *Bida crambella*.

70. *Psecadia conductella*, Walk. (1).

One specimen.

Gelechiidæ.

71. *Æcophora semiruptella*, Walk. (118).

One specimen.

72. *Æcophora arabella*, Newman (455).

One specimen*.

* Confounded with this in the Museum series I find the following:—

Conchylis? auriceps, sp. n.

Primaries above golden ochreous; a subcostal stripe, an internal or dorsal stripe near the margin, a lunate oblique dash on the disk between the inferior angle of the cell and the external angle, a >-shaped marking beyond the cell (its upper ramus extending to apex and its lower one to outer margin), and the fringe leaden grey: secondaries dark bronze-brown: head orange-yellow, the frons dark leaden grey: thorax dark purplish grey, shining: abdomen brown, with whitish hind margins to the segments, terminal and lateral stramineous tufts. Primaries below bronze-brown, with a yellow apical spot: fringe leaden grey: secondaries straw-yellow, the anal half washed with grey: pectus below greyish, the legs and venter sordid cream-coloured. Expanse of wings 24 millim.

Between Sydney and Moreton Bay.

The specimen has unfortunately lost its palpi; so that I cannot be

73. *Æcophora bractearella*, Walk. (36).

One example.

74. *Æcophora interlineatella*, Walk. (125).

One specimen.

75. *Tingena bifaciella*?, Walk. (132).

One unusually large example.

76. *Cryptolechia carnea*, Zell. (184).

One specimen without abdomen.

77. *Cryptolechia triphœnatella*, Walk. (207).

One damaged specimen.

78. *Palparia aurata*, Walk. (283).

A damaged example.

79. *Symmoca? herodiella*, Felder (77).

One specimen.

The three following genera also appear to belong to this family, although I am a little doubtful about the first of them, the antennæ of which, being pectinated to the tips and rather long, seem somewhat aberrant for the Gelechiidæ. I believe, however, that the natural position of this little genus will be found to be near to *Cryptophasa*; and I now name it

CRYPTOPEGES, gen. nov.

Wings rather long, narrow, acuminate at apex; primaries truncated, with very slightly convex costal and dorsal margins and slightly oblique outer margin, grooved below the costal vein at base; discoidal cell very narrow and long, placed in the centre of the wing and divided by a recurrent vein; costal vein terminating at about the middle of the costal margin; subcostal emitting three parallel branches at equal distances before the end of the cell; a fourth branch, forked towards apex, emitted from the superior angle of the

positive of the correctness of its generic location; although in colours it wonderfully resembles *Æ. arabella*, it differs in form, especially in the fringing of the wings and in neuration. I believe it to be a *Conchylis*.

cell; one radial vein; median emitting its three branches near together at the end of the cell; submedian normal; fringe rather short: secondaries triangular, with very long costal margin, short abdominal margin, and very oblique outer margin; frenum simple, rather long; costal vein extending nearly to apex; discoidal cell long and narrow; subcostal emitting its first branch close to the end of the cell, and its second from the superior angle; on the right-hand side in the type the radial is emitted from the second subcostal branch, but on the left side it springs from the discocellulars in the usual manner; median three-branched, the last two branches emitted from the same point at the inferior angle of the cell: thorax robust, smooth. Head smooth, about half the width of the thorax; palpi slender, falciform, erect, projecting for half their length above the front of the head; antennæ three fourths the length of the primaries, with long and cylindrical basal joint, pectinated or, more strictly speaking, setose on both sides (the bristles being directed towards the apex) from the base to the extremity, and slightly tapering. Anterior tibiæ setose or sparsely fringed.

80. *Cryptopeges fulvia*, sp. n. (279).

Primaries above purplish brown; secondaries orange-ochreous, with black-brown external border and abdominal fringe; body above bronzy blackish, antennæ bronze-brown; palpi whitly brown; abdomen and most of the legs wanting. Primaries below greyish brown, the interno-basal area broadly ochreous; secondaries golden ochreous, with grey-brown external border; pectus shining plumbaginous grey; legs pearl-grey below, brown above and banded with blackish. Expanse of wings 16 millim.

One damaged specimen.

LATOMETUS, gen. nov.

Wings long, narrow, acuminate, with rather long fringes: primaries below deeply grooved below the base of the costal border; costal vein short, terminating before the middle of the margin; remaining veins arranged nearly as in the preceding genus: secondaries ovoid, forming an obtuse point at apex; first subcostal branch emitted at some distance before the end of the cell; other veins almost as in the preceding genus. Thorax very robust, smooth. Head about half the width of the thorax, rather roughly covered with short hair-scales; palpi long, ensiform, tapering, projecting for about twice its length beyond the front of the head; antennæ extending to about

the third fourth of the costal margin of primaries, rather slender and ornamented throughout their length by short setæ on both sides. Legs robust; the fore pair shortest, the hind pair longest, the latter with two unequal pairs of tibial spurs and a compressed fringe of rather long bristles; middle legs with a terminal pair of tibial spurs.

81. *Latometus pilipes*, sp. n. (117).

Primaries above shining cream-white, with a longitudinal subcostal olivaceous stripe from base to apex; a second very indistinct interno-median stripe and an abbreviated dorsal stripe; fringe pale testaceous or sordid buff: secondaries greyish brown, with bronze reflections: thorax greyish brown, with a few white scales, most numerous round the collar, and with a slight pearly gloss in certain lights; antennæ blackish; palpi pearl-white; abdomen wanting in the type. Wings below shining greyish brown; pectus plumbaginous grey, glistening; legs greyish brown, with the lower margins of the femora glittering golden opaline. Expanse of wings 21 millim.

One example.

Although this species appears to have some affinity to the preceding one, many of its structural characters being similar, it bears no resemblance to it in the form and coloration of its wings, which are more like those of *Coleophora*.

ZACORUS, gen. nov.

Aspect of *Sciaphila* (*S. Gouana*); wings of the same general size and form; neuration quite different. Primaries below grooved at base of costal vein, as in the two preceding genera; costal vein extending to beyond the middle of the margin; subcostal with five branches, of which the first three are emitted before the end of the cell, and the last two from a long foot-stalk emitted from the anterior angle of the cell; radial emitted from the discocellulars as usual; three median branches emitted near together at the inferior extremity of the cell; submedian normal. Secondaries with similar venation to that of the two preceding genera, excepting that the first median branch is emitted further from the two others. Thorax very robust, smooth. Head rather woolly, but with the soft hair projecting forwards and smooth on the vertex; palpi very long and ensiform, projecting obliquely about five times the length of the head beyond the front of it; antennæ slender, simple, extending to about three fifths of the length of the costal margin of primaries. Abdomen smooth, sericeous. Legs rather robust, the femora compressed; posterior legs with the tibial and tarsal joints fringed at the extremities with stiff short bristles.

82. *Zacorus carus*, sp. n. (11).

Primaries and thorax above shining silvery white; secondaries and abdomen shining lilacine grey. Under surface shining greyish brown, with silvery whitish fringes. Expanse of wings 27 millim.

One example.

This is a very pleasing little moth, which at first sight might almost be mistaken for *Sciaphila Gouana*; it is, however, allied to the preceding genera and to *Ecophora*.

XIII.—*Descriptions of two new Species of Papilio from North-eastern India, with a Preliminary Indication of an apparently new and remarkable Case of Mimicry between the two distinct Groups which they represent.* By J. WOOD-MASON, Deputy Superintendent, Indian Museum, Calcutta, on Special Duty with the Government of India.

1. *Papilio sikkimensis*, n. sp.

♂. Anterior wings oval, with the outer margin regularly rounded, and not in the least degree scalloped; above greenish black, with the base, the costal margin, cellular streaks, the folds of the membranous interspaces between the veins, and the veins narrowly bordered on both sides by intense velvety black, with the wing-membrane between the streaks and between the veins and black folds peppered regularly and rather sparsely with minute elongated whity-brown scales, and with the short cilia pure white, broadly but almost imperceptibly intersected by black.

Posterior wings elongated and narrow, each with a well-developed spatuliform "tail" in the usual position; above with the basal half green-black, the rest of the organs being intense velvety black, with a conspicuous cretaceous-white patch situated immediately beyond the end of the cell, and divided by the black-bordered veins into three parts or spots—one, large and subfusiform, between the second and third median veinlets, another between the third median veinlet and the discoidal vein, still larger and filling the basal half of the space, and a third, more or less than one third the size of the first, between the discoidal vein and the second subcostal branch, just before the middle of the space and of the second spot; each of these spots irrorated at the edges with red scales, especially externally and below, with a marginal and wavy submarginal series of four rich deep violascent red